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In the Supreme Court of the United States

OCTOBER TERM, 1965

No. [redacted] 737

THE V. L. SMITHERS MANUFACTURING COMPANY,
Petitioner,

vs.

WILLIAM P. O'BRIEN and
WILLIAM J. O'MALLEY, d.b.a.
ILLINOIS WHOLESALE FLORIST,
Respondents.

PETITION FOR WRIT OF CERTIORARI
To the United States Court of Appeals
For the Seventh Circuit.

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ILLINOIS WHOLESALE FLORIST,

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PETITION FOR WRIT OF CERTIORARI
To the United States Court of Appeals For the Seventh Circuit.

Petitioner, The V. L. Smithers Manufacturing Company, prays that a Writ of Certiorari issue to review the Judgment of the United States Court of Appeals for the Seventh Circuit, entered in the above-entitled case on December 23, 1964.

OPINIONS BELOW.

The opinion of the United States District Court for the Southern District of Illinois, Northern Division is reported at 227 F. S. 472 and 141 U. S. P. Q. 127. The opinion of the Court of Appeals is reported at 340 F. 2d 952 and 144 U. S. P. Q. 117. Both opinions are printed in the Appendix at pages A1 to A13.

JURISDICTION.

The judgment of the Court of Appeals was entered December 23, 1964. A Petition for Rehearing, filed January 7, 1965, was denied on February 16, 1965. The jurisdiction of this Court is invoked under 28 U. S. C. 1254(1).

QUESTIONS PRESENTED.

1. Does the cancellation of a rejected claim constitute a disclaimer, not only of the cancelled claim, but also of equivalents of a granted claim which are not equivalents of the cancelled claim, when the cancelled claim lacked an element essential to the utility of the invention and the granted claim included that element?

2. Can the rejection and cancellation of a claim not including an essential element defeat the statutory mandate (35 U. S. C. 112) that a claim to a combination which includes that element defined by its function, "shall be construed to cover," not only the corresponding structure described in the specification, but also "equivalents thereof"?

3. Should the ruling of this Court in *Sinclair Co. v. Interchemical Corp.*, 325 U. S. 327, 330, that after trial of a patent infringement action it "will usually be the better practice" to decide validity, be modified and strengthened to require a decision on both validity and infringement in the absence of compelling reasons to the contrary?

STATUTE INVOLVED.

The statutory provision involved is the last paragraph of Section 1, Patent Act of July 19, 1952, C. 950 § 1, 66 Stat. 798; 35 U. S. C. 112:

> "An element in a claim for a combination may be expressed as a means or step for performing a speci-

fied function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

STATEMENT OF THE CASE.

In this action for infringement of petitioner's Patent No. 2,753,277 (107a)* respondents, by Answer and by Counterclaim, asserted invalidity and non-infringement (1a). After trial of both issues the District Court found non-infringement by reason of estoppel and entered judgment dismissing the Complaint without ruling on validity (A10). The Court of Appeals of the Seventh Circuit affirmed on the opinion of the District Court (A12-A13).

The patented subject-matter is a water retentive foam for supporting cut flowers and supplying them with water. It is used by florists as a base for decorative and artistic flower arrangements. The particular foam itself is hydrophobic—that is, it resists being wetted by water and will absorb only small quantities of water after long periods of immersion.

The patent discloses the inventor's discovery that a concentrated solution of a wetting agent sprayed onto an exterior surface of the foam soaks in a short distance and dries as a thin layer at the surface (109a, col. 3, ll. 67-69). The evaporation of the water in drying concentrates the dissolved material at the surface (34a, 99a) leaving a lesser amount in the cells of the foam (99a). This concentrated surface layer, positioned to contact the water when the treated foam is immersed in water, carries the

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* Pages of petitioner's Appendix filed in the Court below are referred to as (a); pages of the Appendix annexed to this Petition are referred to as (A).

water into the interior of the foam, completely saturating it.

The inventor first filed an application for patent which was incomplete and which was later abandoned and replaced by the application which resulted in the patent in suit. The estoppel found by the Court below is based on claim No. 1 rejected and cancelled in the first application (130a):

> "1. As an article of manufacture, a synthetic organic foam and a wetting agent carried in the cells thereof."

This claim included as an element only that portion of wetting agent "in the cells" of the foam; it did not include the "exterior layer" element of the patented claims.

This claim was rejected and cancelled, the inventor acknowledging that the element of wetting agent "in the cells" was old, and pointing out that it did not work and did not achieve the new results of his invention (136a).

The patented claims 1 to 5 (110a) do not include in the claimed combination any wetting agent "carried in the cells"; instead, they include as an element a "layer" or a "dried layer" of "a wetting agent on the exterior of the mass" of foam. The position and quantity of the "layer" are defined by the functional expression "adapted to carry water into the interior of the mass."

The Accused Material.

The accused material consists of bricks of the same foam used by petitioner pierced by a large number of passages opening to the outside through one face. A solution of wetting agent in water is applied to the surfaces of the foam surrounding the passages and allowed to dry. The material is shown and described in the Palombo patent No. 3,049,444 (5a).

The passages, indicated at 44 in the Palombo drawing (5a), are of a size to permit water to flow rapidly through them into contact with the exposed layers of wetting agent on the surfaces of the foam surrounding the passages. The Palombo patent says (Col. 3, ll. 1-3, 8a):

> "The presence of these passages 44 permits the rapid entry of water when the mass is submerged therein."

As the District Court found, the water enters the passages and contacts the wetting agent (146a):

> "* * * after which water is quickly drawn into the interior of the mass of foam."

The Ruling of Estoppel.

Conflict with the decisions in other circuits arises from the ruling by the Courts in the instant case that petitioner is estopped to cover an equivalent of the granted claims which is not the same as, or equivalent of, the cancelled claim. The District Court said:

> "The accused product does accomplish the same result as plaintiff's patented product by the use of the same combination of elements" (144a).
>
> * * * * *
>
> "I hold that the surfaces of the perforations within the body of the accused product are not a part 'of the exterior of the mass' within the meaning of the claims of the patent in suit.
>
> "Plaintiff is estopped to rely upon the doctrine of equivalents to prove infringement." (148a.)

After quoting the cancelled claim 1, which included the element of wetting agent "in the cells" but did not include the dried exterior layer element of the patented claims, the Court continued:

"Having so limited his claims to overcome the rejection of this application, plaintiff is estopped to claim a monopoly upon the use of wetting agent *within the mass* by invoking the doctrine of equivalents." (148a; emphasis ours.)

The relocation of the dried exterior layer onto the exposed surfaces of the passages recessed into the outline of the mass is not the same as, or the equivalent of, the wetting agent "in the cells" which was disclaimed.

REASONS FOR GRANTING THE WRIT.

1. The Conflict With Other Circuits.

The extension of the rule of estoppel by the Courts below—depriving Petitioner of protection against the flimsiest and most transparent subterfuge designed to shelter the piracy of the patented invention—is in direct conflict with decisions of Courts of Appeals for the Second, Fifth, Sixth and Eighth Circuits, and is an important question of patent law that has not been decided by this Court.

This Court's decisions have held that a patentee is estopped to claim the benefit of a rejected claim, or such a construction of his granted claim as would be equivalent thereto (*Morgan Envelope Co. v. Albany Paper Co.*, 152 U. S. 425, 429; *I. T. S. Rubber Co. v. Essex Rubber Co.*, 272 U. S. 429, 444; *Exhibit Supply Co. v. Ace*, 315 U. S. 126, 136). This rule is not in dispute and is not involved here.

But we find no decision of this Court holding the converse; that the estoppel does not preclude such a construction of the granted claim as is not the same as, or in any way equivalent to, the rejected claim; or holding, in the words of the Court of Appeals for the Eighth Circuit: "that

is the limit of the estoppel." (*New York Scaffolding Co. v. Whitney,* 224 Fed. 452, 462, C. A. 8.)

This question of the proper limits of the estoppel rule is of importance to the entire field of patent law and is of extreme importance to the individual or "garret" inventors (such as Petitioner's assignor) who file applications disclosing only the best form of their invention, relying on the law to protect them against equivalent modifications or improvements,* as distinguished from corporate research groups with the money to explore and disclose all equivalent variations.

The Petitioner's invention filled the "two basic needs" (A1) for optimum results in floral arrangement, and the rapid growth in sales of the new product (112a) created a new industry. Respondents' supplier, which is defending this action, first duplicated Petitioner's commercial product and after notice of infringement (119a) substituted the accused material which it patented as an improvement over Petitioner's patent in suit (7a). It is claimed to be an improvement because it saturates more rapidly; this follows from the increase in exterior surface area provided by the passages for water extending into the block with their dried surface layers of wetting agent. It is now settled that improvement does not avoid infringement. (*Temco v. Apco,* 275 U. S. 319, 328.)

Since the beginning of our patent system successful inventions have been beset by attempted piracy with all the stratagems man's ingenuity can devise. In *Goodyear v. Day,* Fed Cas. 5569, 10 Fed. Cas. 678, 684 (1852), Mr. Justice Grier, sitting in the Circuit Court, said:

> "Every one who can invent an improvement, or vary its form, claims a right to pirate the original discovery.

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* *U. S. vs. Anciens Etablissements Cail,* 224 U. S. 309, 328.

> We need not summon Morse, or Blanchard, or Woodworth to prove that this is the usual history of every great discovery or invention."

Since this Court's reaffirmance of the doctrine of equivalents in *Graver Mfg. Co. v. Linde,* 339 U. S. 605, there have been increasing efforts to expand the estoppel rule so as to bar the application of the doctrine, culminating in the decisions of the Courts below in the instant case denying coverage of the most palpable equivalent of the new element in the claims because of the prior cancellation of a claim lacking that element and containing, instead, a different element which was both old and inoperative.

The decisions in other Circuits conflicting with the decision below arose on varying facts, but each limits the application of the estoppel rule consistently with the general principle that cancellation of a claim does not preclude such a construction of a granted claim as is not the same as, or in any way equivalent to, the rejected claim.

In *Southern Textile Machinery Co. v. United Hosiery Mills Corp.,* 33 F. 2d 862, the Court of Appeals for the Sixth Circuit said, page 866:

> "This doctrine does not, however, go to the extent of depriving a patentee of protection against all equivalents * * *."
>
> * * * * *
>
> "* * * the estoppel should go no further than to bar the patentee from reliance upon the canceled claim in its broadest or generic construction."

In *Farrington v. Haywood,* 35 F. 2d 628 (C. A. 6), the Court said, pages 630-631:

> "But we are of the opinion that, if the language adopted permits, 'he is not estopped from claiming and securing by the amended claim every improvement and

combination which he has invented and which was not disclosed by those references.' "

In *Musher Foundation v. Alba Trading Co.*, 150 F. 2d 885, C. A. 2, the Court, speaking through Judge Learned Hand, said, page 888:

> "The applicant may not by resort to the doctrine of equivalents interpret any claim which he succeeds in getting allowed, so that it will cover the contents of the rejected claim without some limitation."
>
> * * * * *
>
> "That surrender does not of course result in a dedication of all species of the genus surrendered; but it does surrender any monopoly upon the genus as such: i.e. unless it be restricted to some species of that genus."

In each of those cases in the Sixth and Second Circuits the granted claims were limited to a species of the broad genus of the cancelled claim, but there was no estoppel to cover equivalent variations of that species.

In the instant case, on the contrary, the interpretation of the claims to cover the accused material, which was refused by the Court below, would not in any way cover the contents of the rejected claim since it would not be claiming the wetting agent "in the cells." In addition, the patented claims remain definitely limited to the exterior layer even when interpreted to cover the relocation of that layer on the surfaces of the holes recessed into the accused foam.

In *Hunt Tool Co. v. Lawrence*, 242 F. 2d 347, C. A. 5, the Court said, page 354:

> "Also, since the patent examiner's objection was with reference to the prior art, appellants are protected by file wrapper estoppel only if they can show that their alleged infringement is in an area to which the

prior art could possibly have been thought to extend so as to make it impossible to make valid claims there, for there is no reason to presume that applicant made a disclaimer broader than necessary to yield to the actual challenge to his claim."

In *New York Scaffolding Co. v. Whitney,* 224 Fed. 452, the Court of Appeals for the Eighth Circuit said, page 462:

"While a patentee who acquiesces in the rejection of his claim, and abandons it on references cited in the Patent Office, and accepts a patent on an amended claim, is thereby estopped from maintaining that the latter claim covers the combination shown in the references, and that it has the breadth of the abandoned claim that was rejected, *that is the limit of the estoppel.*

* * * * *

"* * * one who acquiesces in the rejection of his claim because it is said to be anticipated by other patents or references *is not thereby estopped from claiming and securing by an amended claim every novel and useful improvement that is not described in those references."* (Emphasis ours.)

In these cases in the Fifth and Eighth Circuits the estoppel from cancellation of claims rejected on prior art was limited to the prior art and its equivalents; the Courts did not permit the appropriation of the patented invention by mere literal departure from the claims while retaining the same essential distinction from the prior art.

In the instant case the granted claims distinguish from the cancelled claim and the prior art on which it was rejected by including the exposed layer of wetting agent on the exterior of the foam to carry water into the interior. The accused material retains this same exposed exterior layer and the same distinction from the cancelled claim and the prior art, differing from the patentee's preferred

form only in repositioning the exterior layer onto holes recessed into the block. The extension of the estoppel rule by the Courts below in the instant case to bar resort to the doctrine of equivalents is in direct conflict with the ruling by the Courts of other Circuits in each of the cited cases.

A resolution of this conflict by this Court is clearly of great importance to the patent law. Cancellation and amendment of claims is the usual course in the prosecution of patent applications. It is equally important to the public, the beneficiary of the disclosures inventors are induced to make by the reward promised in a patent grant. To bar arbitrarily all resort to the doctrine of equivalents because of the cancellation of a claim to a different combination, in no way equivalent to the alleged infringement, would have the same adverse effect on the public interest as repealing the doctrine itself. As this Court said in *Graver Mfg. Co. v. Linde,* 339 U. S. 605, 607:

> "Outright and forthright duplication is a dull and very rare type of infringement. To prohibit no other would place the inventor at the mercy of verbalism and would be subordinating substance to form. It would deprive him of the benefit of his invention and would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system."

2. The Conflict With the Statute.

The decision of the Courts below denying to Petitioner's claims a construction covering equivalents is also in direct conflict with the provision in the Patent Act of 1952 which appears as the final paragraph of 35 U. S. C. 112 (*supra,* pp. 2-3). This statute provides that an element in a combination claim may be expressed as "a means" for performing a particular function without re-

citing all of the structure or material necessary to obtain the function, and provides that such a claim "shall be construed" to cover the corresponding structure described in the specification "and equivalents thereof."

The claims in suit recite a "layer" or a "dried layer" of a "wetting agent" on the "exterior of the mass" of foam, which is "a means," and further define the exposed position and quantity of this "means" by the functional expression "adapted to carry water into the interior of the mass." This function requires that the layer be positioned to contact water when the mass of foam is immersed in water, and that it be sufficient in quantity and concentration to carry water into the interior.

The statute contains no exception to this mandatory provision that the claim "shall be" construed to cover equivalents. It applies to construction of the claims in determining validity as well as in determining infringement, and in neither case does the statute authorize or permit a more limited construction because of a prior cancellation of some other claim.

It is plain that if a prior art device is, in fact, an equivalent of the corresponding structure described in the specification, performing the function recited in the claim, the statute requires the claim to be construed to cover that prior art device and, therefore, to be invalid. Clearly a patentee would not be heard to urge his claim should be given a narrower construction to save it from invalidity over a prior art equivalent because of the cancellation of other claims in his application. Equally clearly, the statute allows no room for such a narrowing construction at the behest of an infringer.

In other words the statute defines the scope of the language of the claims before consideration of the doctrine of equivalents as to matters falling outside that language,

and therefore before consideration of any estoppel from cancelled claims which might bar application of the doctrine of equivalents.

Neither the doctrine of equivalents nor any question of estoppel arises if the accused matter is within the claim, as this Court said in *Graver Mfg. Co. v. Linde Co.*, 339 U. S. 605, 607:

> "If accused matter falls clearly within the claim, infringement is made out and that is the end of it."

Under the statute the matter that falls clearly within that part of the claim reciting "a means" defined by its function is the corresponding structure described in the patent and equivalents thereof. The decision of the Courts below is directly contrary in holding Petitioner is barred from covering an equivalent relocation of the layer of wetting agent where it continues to perform the claimed function of carrying water into the interior of the mass.

A resolution of this conflict between the decision below and the statutory provision is, likewise, a question of substantial importance to the patent law and to the public, and one which has not yet been, but should be, decided by this Court.

3. Should the District Courts Rule on Validity?

This question alone presents no reason for granting the writ in this case. However, if the Court should grant the writ to resolve the conflict on infringement and estoppel, Petitioner respectfully submits the existing directives should be modified and strengthened to require that when both issues of validity and infringement are tried, both should be decided by the District Court, in the absence of compelling reasons to the contrary, in order to reduce piecemeal decisions and appeals. The Courts in the

different Circuits have given different interpretations to the existing directive on this subject.

The Court of Appeals for the Second Circuit in *Harries vs. Air King Prod. Co.*, 183 F. 2d 158, 162-163, analyzed this Court's directive as not being "peremptory," but rather a "cautionary admonition" to be followed when that is the "more convenient course."

The Court of Appeals for the Ninth Circuit in *Coe Mfg. Co. vs. Jeddeloh Bros.*, 306 F. 2d 455, on an appeal from a judgment holding non-infringement without ruling on validity, vacated the judgment and remanded the case to the District Court for a decision on both validity and infringement. In that case, as in the instant case, and in *Altvator v. Freeman*, 319 U. S. 359, 363, validity was put in issue both by the complaint and answer and by a counterclaim for declaratory judgment.

The practice in the Seventh Circuit has been to permit piecemeal disposition without directives to the District Courts to the contrary. Thus, in *Holland Co. v. American Steel Foundries*, 190 F. 2d 37, the Court reversed the District Court's judgment which found non-infringement without deciding validity and remanded the case for further decision. In *Holland v. American Steel Foundries*, 196 F. 2d 749, C. A. 7, the Court affirmed the District Court's decision on remand that the patent was invalid.

It cannot be doubted, as this Court said in *Sinclair Co. vs. Interchemical Corp.*, 325 U. S. 327, 330, that of the two questions validity has the greater public importance. This is true whether the patent is valid or invalid. It would be helpful in economizing judicial time and effort, and in reducing the expense to litigants, if the trial court in every patent case would decide both issues, particularly when both are presented in a counterclaim as well as in the complaint.

CONCLUSION.

For the foregoing reasons this Petition for a Writ of Certiorari should be granted for determination of questions 1 and 2. If granted, question 3 is also presented for decision.

Respectfully submitted,

H. F. McNENNY,

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May 13, 1965.

APPENDIX

APPENDIX.

MEMORANDUM, CONCLUSIONS OF LAW AND JUDGMENT OF THE DISTRICT COURT.

(Entered March 18, 1964.)

Plaintiff, The V. L. Smithers Mfg. Co., is the owner by assignment of the United States Letters Patent No. 2,753,277, issued July 3, 1956, to Vernon L. Smithers relating to the manufacture of an absorbent material for floral arrangements. Plaintiff is engaged in the manufacture and sale of the patented product, namely, a hydrophilic floral foam, which it markets under the trade name "Oasis."

Defendants are wholesale florists, doing business in the State of Illinois. They sell the accused product which is manufactured by American Metaseal of Massachusetts, Inc., and is marketed under the trade names of "Aquafoam" and "Quickee."

Defendants pleaded invalidity of the patent and noninfringement thereof as defenses to the suit. After a trial of the cause, and the submission of briefs by the respective parties, the case is before the court upon the issues joined by defendants' answer.

The patent and the issues are best understood by a brief history of the prior art. Floral arrangement has two basic needs for optimum results. The first is a material which will hold the stems of the cut flowers in place and preserve the arrangement thereof. Secondly, for optimum utility, such material needs to be quickly water absorbent and water retentive. Sponge, moss and a number of other substances were used from time to time for such arrangements, but without completely satisfactory results. Some of the substances known and used by the art did not readily support cut flowers and none had the water retention qualities which were desirable.

Foam material made from urea-formaldehyde and phenolic condensation resin were known to the art long before the Smithers patent.[1] Such foam is very light in weight and contains within a given mass thereof a great number of sealed bubbles, or voids. It is hydrophobic (water repellant) by nature. As the evidence adduced in this case reveals, the U. S. Rubber Company manufactured such a foam under the name "Flotofoam" which was used extensively during World War II to float military equipment in water. Thus, the foam itself lacked one of the necessary qualities for use in the arrangement of cut flowers, namely, it was not readily saturable. On the other hand, such foam is frangible by nature, even when saturation is achieved, and will readily admit the stems of cut flowers to be forced into the mass thereof without breaking the foam and will readily support even heavy cut flowers.

One of the first uses of urea-formaldehyde foams for flower arrangements was the "Sno-Pak" product manufactured and marketed by U. S. Rubber Company, among others. Saturation of the Sno-Pak product was achieved by placing the mass of the foam under water where it was crushed by a lever-plate mechanism, thus opening the walls of some of the closed voids in the foam and admitting water thereto.

That, in brief summary, is the state of the art prior to the Smithers' patent.

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[1] Phenolic resin foams are a generic group of related compounds having as base components urea-formaldehyde and a phenolic condensation resin. For purposes of this opinion, the foam used by plaintiff and that used in the accused product are treated as identical materials, ignoring possible variations in the precise basic composition thereof.

The Patent in Suit.

Basically, what Mr. Smithers did was to combine urea-formaldehyde foam with a wetting agent[2] to make the foam readily saturable (hydrophilic) with the result that a given mass of the foam, treated in the manner taught by the patent, would readily absorb and retain many times its weight in water. When thus saturated, stems of cut flowers can be inserted into the saturated mass of foam without distortion of the mass so that they remain supported in place for the life of an arrangement and there is no drainage or loss of water from the mass of foam.

Claim 1 of the patent in suit is illustrative of the three claims alleged to be infringed. It claims: "As a new article of manufacture a water retentive mass of a foamed synthetic material selected from the group consisting of urea-formaldehyde and a phenolic condensation resin, suitable for supporting the stems of cut flowers, said mass being frangible when saturated with water so as to allow penetration of the stems of flowers without distortion of the

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[2] "Wetting Agent" is a generic term, descriptive of a large number of chemical substances which have the property of causing water to penetrate water repellant materials. Because the molecules of water strongly attract each other, its surface tension is extremely high. When water is placed on a water repellant material which it has the incapacity to wet readily, this attraction of the molecules for each other causes a drop of water to assume a spherical shape as the outermost molecules are drawn inwardly toward the molecules in the center of the drop. Wetting agents have a two-part molecule. One part is attracted to water, while the other part is repelled by water. When such an agent is placed in water, the molecules of the agent tend to concentrate on the surface of the water with the repelled part at the surface. This film of hydrophobic molecules at the surface interferes with the cohesive attraction of the water molecules for each other, greatly diminishing the surface tension. Since the hydrophobic part of the agent is itself attracted to hydrophobic materials, when water containing a wetting agent is placed on a water-repellant substance, the attraction of the wetting agent to the molecules of the substance causes the water to flow into and wet the substance.

mass and having a mutiplicity of small bubble-like voids, and a layer of a wetting agent on the exterior of the mass adapted to carry water into the interior of the mass."

Claim 2 is identical to Claim 1 except that it claims, in the last clause thereof, "A dried layer of a liquid wetting agent on the exterior of the mass adapted to carry water into the interior of the mass." Claim 3 is likewise identical to Claim 1 except that it claims in the last clause thereof, "A dried layer of a liquid wetting agent on the exterior of the mass adapted to carry water into the interior of the mass and into any closed voids." [3]

The product, Oasis, manufactured under the Smithers patent, is manufactured by foaming large quantities of material which, when set and dried, produce large blocks of the foam material. These are then cut into brick shaped blocks of the desired size, upon all exterior surfaces of which a wetting agent is applied and permitted to dry. The blocks are then sold to the floral industry in such prepared state. As needed, the florist simply places the block in a container of water wherein it becomes saturated in a brief period of time.[4]

The Accused Material.

"Aquafoam" or "Quickee," is also manufactured by combining urea-formaldehyde foam with a wetting agent to achieve the same result as plaintiff's Oasis.

The accused product is made from a phenolic resin foam of the same character as that used in Oasis. After the foam has set and dried, it is cut in blocks or masses of the

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[3] Claims 4 and 5 of the patent are dependent claims, defining the limits of acidity of foams manufactured as described in claims 1 to 3.

[4] A second embodiment of the claimed invention is the use of the foam material in shredded form.

desired size. These blocks or masses are placed upon a machine which injects one surface of the block with a large number of needles which penetrate the mass to within a short distance from the opposite surface thereof. After the points of the needles have penetrated within the interior of the mass, a liquid wetting agent is fed through the needles into the mass. The machine used is so designed that the feed of wetting agent through the needles ceases before the needles are withdrawn from the block of foam. The resulting product is a mass of foam having a large number of holes or openings upon one exterior face thereof with the wetting agent disposed therein.

When used, the mass of foam is placed in water with the holes down. The result is a product which is readily saturable with water and which tends to reach saturation more quickly than does Oasis.[5]

Infringement.

Upon the issue of infringement, it is axiomatic that the monopoly of a patent is limited by the claims thereof.

The elements comprising the claims of this patent, namely, urea-formaldehyde, phenolic resin foam and the employment of wetting agents to achieve wetting are both old in the art and, thus, not the subject of monopoly. Thus, using claim 1 as an example, the critical language is the last clause describing the particular combination of such known elements to achieve novelty, to-wit, a combination of a foam of the type thereinbefore described with "a layer of a wetting agent on the exterior of the mass adapted to carry water into the interior of the mass."

The accused product does accomplish the same re-

[5] The accused product is manufactured by a process described in U. S. Letters Patent No. 3,049,444, issued August 14, 1962, to Albert M. Palombo, the President of American Metaseal.

sult as plaintiff's patented product by the use of the same combination of elements. In view of the limitation upon the patent claims to a combination having a layer of wetting agent upon the exterior of the mass sufficient to carry water into the interior of the mass, the issue upon infringement is the question whether the accused product has a like layer of wetting agent on the exterior of the mass.

Each party called expert witnesses who reached diametrically opposed conclusions upon the question whether active wetting agent was present on the exterior of the accused product.[6]

Mr. Wetherill, for plaintiff, concluded that there was wetting agent upon the exterior of the accused product from mechanical tests which he had performed.

Dr. Colburn, for the defendant, conducted chemical analyses of the accused product and certain mechanical tests which led to his conclusion that there was no wetting agent, or only an insignificant trace of active wetting agent, upon any of the external surfaces of the accused Aquafoam. He found the wetting agent contained in the product concentrated in the interior of the mass.

A series of mechanical tests performed by Dr. Colburn are enlightening. A block of the accused foam placed in water with the holes down became completely saturated within one hour. By way of contrast, blocks floated upon water with the holes up failed to absorb water and remained floating at the end of twenty-four hours. He removed a slice one-half inch thick from the perforated side of an Aquafoam block, thus exposing a surface having

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[6] A small quantity of a wetting agent is an ingredient of the foam itself. Although that wetting agent remains within the cells of the mass of foam, it does not remain as an active wetting agent because of a reaction to the foaming process. Thus, the exterior of the blank foam contains chemically detectable traces of residue of the agent used in the foaming process.

substantial wetting agent upon it, which he covered with an untreated piece of foam, with the joint sealed to prevent the entry of water therethrough. He placed that composite in water, with the grafted untreated surface down. The block continued to float at the end of twenty-four hours with no significant penetration of water thereinto. To one perforated blank block of foam, Dr. Colburn joined a slice ¼ inch thick from the perforated side of a block of commercial Aquafoam. To another, he joined a ⅛ inch thick slice from the perforated side of a treated Aquafoam block. When these are floated upon water, saturation of only the treated section was achieved. No significant penetration of the untreated foam was noted. To an unperforated, untreated block of foam, Dr. Colburn affixed a ⅛ inch thick slice from the exterior of an Oasis block, with the exterior of the Oasis block becoming one exterior surface of the composite. When placed upon water, with the Oasis side down, approximately one-half of the composite block became saturated and submerged within thirty minutes. As a final test, Dr. Colburn cut a ¼ inch slice from the perforated face of a commercial Aquafoam block. To that surface, he attached a ¼ inch slice from an untreated block which had been perforated with the same hole pattern as the commercial Aquafoam. The composite so formed, when placed in water with the holes down, became saturated and sank within thirty minutes.

I find the Colburn tests extremely significant. They lead to the conclusion that there is no significant amount of active wetting agent upon any of the exterior dimensions of the accused foam. Rather, the accused device depends for its success upon water entering through the many perforations to contact the wetting agent within the mass, after which water is quickly drawn into the interior of the mass of foam.

In fact, Dr. Colburn's conclusions are not seriously contradicted by the testimony of Mr. Wetherill. The latter testified that an analysis of the surface of the accused product was inconclusive with respect to the question whether active wetting agent was, or was not, present. He did testify that he floated a block of the accused foam upon water with the holes up and that that block became saturated and sank. There is, however, no dispute in the evidence that foams vary from batch to batch and that some open cells are formed. In weighing all of the evidence, it is illogical to assume that active wetting agent must have been present on the outer surface of the latter block to account for its saturation. As Mr. Wetherill admitted, if there were an opening in the exterior of the mass which would admit water into the interior of the mass and into contact with the wetting agent therein, the mass would then wet rapidly.[7]

I find from all of the evidence that there is no significant amount of wetting agent upon any exterior surface of the accused product. It is certain that there is absent a "layer" of wetting agent, and no amount of wetting agent on any exterior face of the material adequate "to carry water into the interior of the mass."

Indeed, plaintiff virtually concedes that finding by its assertion that the circumference of each of the holes in the accused product is a part of the exterior of the mass. It argues that the wetting agent within the mass of the accused product would be principally concentrated upon the surfaces within the many holes, and that perforation of the mass merely increases the exterior surface thereof.

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[7] Wetherill's report of his float test indicates that the block tilted to one side before it became saturated and sank, indicative of the fact that wetting began in one area of the block, as distinguished from uniform wetting over the whole of a treated surface.

I reject the argument. The claims speak of "exterior" and it is clear from the teaching of the patent that that term was used in its ordinary sense, i.e., as descriptive of the outer faces of the mass. One cannot read the specifications without concluding that the inventor attached no special or unusual meaning to that word. The specifications state, inter alia: "It has been discovered that if the foam, after being produced in the manner described, is given an exterior coating of a wetting agent, the absorptive properties of the foam are increased to a degree which is astonishing.

"For this purpose a block of foam * * * is sprayed with a wetting agent so that the agent dries in a thin layer at the surface of the block. The layer of wetting agent does not penetrate appreciably into the block but remains as a solid coating over the exterior of the block until the block is immersed in water." Continuing, its states:

"The fact that the wetting agent is concentrated on the surface of the block and is carried into the block by the water, causes the concentration of the wetting agent to progressively diminish as the water is absorbed by the block. This action is very desirable because the concentrated wetting agent is not beneficial to the flowers, but as it is only in a very dilute solution in the interior of the block, any deleterious effects of the wetting agent are nullified.

"An important advantage in coating the exterior of the foam with the wetting agent is that the dried layer of wetting agent will act as a binder over the exposed surfaces of the block, and this will prevent the objectionable dusting off of fine particles of the material in handling."

I hold that the surfaces of the perforations within the

body of the accused product are not a part "of the exterior of the mass" within the meaning of the claims of the patent in suit.

Plaintiff is estopped to rely upon the doctrine of equivalents to prove infringement. The original Smithers application contained a claim as follows:

"As an article of manufacture, a synthetic organic foam and a wetting agent carried in the cells thereof." The application was rejected by the Examiner on the prior art and, also, because the claim was broad enough to cover synthetic rubber and all other plastic foams."

In response to that rejection, the specifications were amended to teach the application of the wetting agent to the exterior of the foam. The original claims were cancelled and new claims were drawn to include a specification of the group of foams included within the teaching of the patent, in combination with a layer of wetting agent applied to the exterior of the mass. Having so limited his claims to overcome the rejection of this application, plaintiff is estopped to claim a monopoly upon the use of wetting agent within the mass by invoking the doctrine of equivalents. *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U. S. 126; *Taylor-Reed Corp. v. Mennen Food Products*, 7 Cir., 324 F. 2d 108; *Bauer v. Yetter Mfg. Co.*, S. D. Ill., 205 F. Supp. 904, aff'd 315 F. 2d 377.

I find and conclude that the accused product does not infringe the claims of the patent in suit. Thus, there is no necessity to consider the issue of validity. The court's findings of fact are included in the foregoing memorandum.

Conclusions of Law.

1. The court has jurisdiction of the parties and subject matter in the cause of action.

2. Words used in the claims of a patent must be given their ordinary and accustomed meaning unless it appears from the patent application and the specifications that the inventor attached some different meaning thereto. Cf., *Apex Electrical Mfg. Co. v. Altorfer Bros. Co.*, 7 Cir., 238 F. 2d 867, 873.

3. To prove a patent infringed, the complaining party must prove not only that the accused product accomplishes the same result, but, also, that the accused product achieves that result by substantial piracy of the invention claimed or by an equivalent means. *Zyaset v. Popeil Brothers, Inc.*, 7 Cir., 276 F. 2d 354, 357; *Hunt v. Armour*, 7 Cir., 185 F. 2d 722, 728. The function of an invention is not patentable. Variations of form to achieve the same result may be disregarded upon the question of infringement, but an accused product does not infringe a patent unless the substance of the invention claimed is employed by the alleged infringer. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 569.

4. Before infringement can be found, the evidence must reveal that the placement of the elements of the accused material correspond to the claim of "a layer of a wetting agent on the exterior of the mass adapted to carry water into the interior of the mass," or that the elements of the accused material are so arranged as to require application of the doctrine of equivalence. *Independent Pneumatic Tool Co. v. Chicago Pneumatic Tool Co.*, 7 Cir., 194 F. 2d 945, 947.

5. The doctrine of equivalence cannot be invoked by a patentee to recapture a monopoly which he disclaimed

in order to obtain the grant of his patent. *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U. S. 126, 136-7. *Taylor-Reed Corp. v. Mennen Food Products*, 7 Cir., 324 F. 2d 108. *Bauer v. Yetter Mfg. Co.*, D. C. Ill., 205 F. Supp. 904, 906, 909, aff'd 315 F. 2d 377.

6. Defendants are entitled to judgment dismissing plaintiff's suit and to their costs.

Judgment is ordered in accordance with the findings and conclusions hereinabove expressed.

Entered this 18th day of March, 1964.

FREDERICK O. MERCER,
United States District Judge.

DECISION OF THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

(December 23, 1964.)

Before HASTINGS, *Chief Judge*, and DUFFY and MAJOR, *Circuit Judges.*

MAJOR, *Circuit Judge.* Plaintiff is the owner by assignment of United States Letters Patent No. 2,753,277, issued July 3, 1956, to Vernon L. Smithers, entitled "Absorbent Material for Floral Arrangements." Plaintiff is engaged in the manufacture and sale of the patent product, namely, a hydrophilic floral foam, which it markets under the trade name "Oasis."

Defendants, wholesale florists who sell a product manufactured by American Metaseal of Massachusetts, Inc., which is marketed under the trade names "Aqua-foam" and "Quickee," are charged with infringement.

The District Court (Honorable Frederick O. Mercer presiding) on March 18, 1964, entered judgment from

which this appeal comes, dismissing the action on the ground of non-infringement.

Plaintiff's principal grounds for reversal are that the District Court erred in its interpretation of the claims of the patent in suit and in its application of the law of equivalence and "file wrapper estoppel."

The judgment followed an opinion rendered by Judge Mercer which embodies his findings of fact and conclusions of law. *The V. L. Smithers Mfg. Co. v. O'Brien et al.*, 227 F. Supp. 472. In his opinion he discusses in detail the evidentiary facts developed at the hearing which form the basis for his findings and conclusions of law. We are convinced after a careful examination of his opinion that his findings are adequately supported and that his conclusions of law are correct. We thus are in agreement both with the reasoning employed and the result reached. Such being the situation, we think no useful purpose could be served in retreading the ground which he has so well covered. Therefore, we adopt his opinion as that of this Court.

The judgment is AFFIRMED.

ORDER DENYING REHEARING.

(Entered February 16, 1965.)

IT IS ORDERED by the Court that the petition for a rehearing of this cause be, and the same is hereby, DENIED.